AMENDMENTS TO THE CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier. Those claims not cancelled or withdrawn but amended by the current amendment utilize the following notations for amendment: 1. deleted matter is shown by strikethrough for six or more characters and double brackets for five or less characters; and 2. added matter is shown by underlining.

1. (Currently Amended) A method of producing a survey report of subterranean strata which comprises:

deploying an electromagnetic (EM) field transmitter;

deploying a seismic source at substantially the same location as the EM field transmitter;

deploying an EM field receiver at a predetermined offset distance from the transmitter;

deploying a seismic receiver at substantially the same location as the EM field receiver;

applying an EM field to the strata using the EM field transmitter;

detecting the EM wave field response using the EM field receiver;

applying a seismic event to the strata using the seismic source at substantially the same location as the EM field transmitter;

detecting the seismic response using the seismic receiver at substantially the same location as the EM field receiver;

~~analysing~~ analyzing the EM wave field response;

~~analysing~~ analyzing the seismic response; ~~and~~

reconciling the two responses, in order to produce a report on the presence and nature of the strata~~.~~;

identifying the refracted wave component of the EM wave field response;

identifying the refracted wave component of the seismic response; and

using the two refracted wave components to produce the survey report.

2. (Original) A method as claimed in Claim 1, which additionally includes extracting and using phase and/or amplitude information from the responses.

3. (Cancelled)

4. (Currently Amended) A method as claimed in Claim [[3]] 1, in which phase and/or amplitude information from the two refracted wave components is used.

5. (Cancelled)

6. (Cancelled)

7. (Currently Amended) A method ~~as claimed in Claim 5, which includes the steps of:~~ of producing a survey report of subterranean strata using an electromagnetic (EM) wave field response from an applied EM field and a seismic response from an applied seismic event, the method comprising:

deploying an EM field transmitter;

deploying a seismic source;

deploying an EM field receiver at a predetermined offset from the EM field transmitter;

deploying a seismic receiver at a predetermined offset from the seismic source;

applying an EM field to the strata using the EM field transmitter;

detecting the EM wave field response using the EM field receiver;

applying a seismic event to the strata using the seismic source; [[and]]

detecting the seismic response using the seismic receiver[[.]];

identifying a first refracted wave component of the EM wave field response;

identifying a second refracted wave component of the seismic response; and

using the first and second refracted wave components to produce a report on a presence and a nature of the strata.

8. (Original) A method as claimed in Claim 7, in which the EM field transmitter, the seismic source and the two receivers are all in the same plane.

9. (Currently Amended) A method as claimed in Claim 7, in which the distance between the two receivers is 25[[m]] meters or less~~, preferably 5m or less~~.

10. (Previously Presented) A method as claimed in Claim 7, in which the distance between the EM field transmitter and the seismic source is ≤ 0.01 times the value of the offset between the EM field transmitter and the EM field receiver.

11. (Previously Presented) A method as claimed in Claim 7, in which the EM field transmitter and the seismic source are at substantially the same location.

12. (Currently Amended) A method as claimed in ~~Claims~~ Claim 7, in which the EM field receiver and the seismic receiver are at substantially the same location.

13. (Previously Presented) A method as claimed in Claim 1, in which the EM field transmitter comprises an electric dipole antenna.

14. (Previously Presented) A method as claimed in Claim 1, in which the EM field receiver comprises an electric dipole antenna.

15. (Previously Presented) A method as claimed in Claim 1, in which the EM field receiver and the seismic receiver are mounted on the same structure.

16. (Previously Presented) A method as claimed in Claim 1, in which the EM field and the seismic event are applied simultaneously.

17. (Currently Amended) A method as claimed in Claim 1, in which the EM field and the seismic event are applied closely sequentially ~~for example 5 to 25 seconds~~.

18. (Previously Presented) A method as claimed in Claim 1, in which the reflected wave component of the seismic response is identified and the reflected wave component is used to identify subterranean strata.

19. (Previously Presented) A method as claimed in Claim 1, which includes: additionally, deploying a magnetic receiver at substantially the same location as the EM field receiver; detecting a magnetic field response; and using the magnetic field response in combination with the EM wave field response and the seismic response.

20. (Previously Presented) A method as claimed in Claim 1, which comprises repeating the procedure with the EM field transmitter and seismic source, and/or the EM field receiver and seismic receiver, in different locations for a plurality of EM transmissions and seismics events.

21. (Previously Presented) A method as claimed in Claim 1, in which the procedure is repeated at different offsets.

22. (Previously Presented) A method as claimed in Claim 1 which includes the deployment and use of a plurality of EM field receivers and/or a plurality of seismic receivers.

23. (Original) A method as claimed in Claim 22, in which the EM field receivers and the seismic receivers are mounted on a cable.

24. (Previously Presented) A method as claimed in Claim 1, in which the EM field transmitter and/or the seismic source, and/or EM receiver and/or seismic receiver, are located on or close to the seabed or the bed of some other area of water.

25. (Original) A method as claimed in Claim 24, in which the seismic source is located at or near the surface of the area of water.

26. (Previously Presented) A method as claimed in Claim 1, in which the frequency of the EM field is continuously varied over the transmission period.

27. (Previously Presented) A method as claimed in Claim 1, in which the EM field is transmitted for a period of time for 3 seconds to 60 minutes.

28. (Original) A method as claimed in Claim 27, in which the transmission time is from 10 seconds to 5 minutes.

29. (Previously Presented) A method as claimed in Claim 1, in which the wavelength of the transmission is given by the formula:

$0.1s \leq \lambda \leq 10s;$

wherein λ is the wavelength of the transmission through the overburden and s is the distance from the seabed to the reservoir.

30. (Previously Presented) A method as claimed in Claim 1, in which the offset between the EM field transmitter and the EM field receiver is given by the formula:

$0.5\lambda \leq L \leq 10\lambda$;

where λ is the wavelength of the transmission through the overburden and L is the distance between the transmitter and the receiver.

31. (Previously Presented) A method as claimed in Claims 26, in which the transmission frequency is from 0.01 Hz to 1 kHz.

32. (Original) A method as claimed in Claim 31, in which the transmission frequency is from 0.1 to 20 Hz.

33. (Previously Presented) A method as claimed in Claim 1, in which the seismic receiver records a full flow component seismic recording, comprising three displacement vector components and a pressure component.

34. (Previously Presented) Apparatus for use in carrying out a method as claimed in Claim 1, including a receiver assembly comprising: a support structure; an electric dipole receiver antenna mounted on the support structure; a three axis seismic receiver mounted on the support structure; a geophone arrangement mounted on the support structure; a hydrophone mounted on the support structure; and an anchor arranged to attach the support structure to a sea bed.

35. (Cancelled)

36. (New) A subterranean strata survey system comprising:

an electromagnetic (EM) field transmitter adapted to apply an EM field to a subterranean strata;

a seismic source adapted to apply a seismic event to a subterranean strata and deployed at substantially the same location as the EM field transmitter;

an EM field receiver adapted to detect an EM wave field response and deployed at a predetermined offset distance from the transmitter;

a seismic receiver adapted to detect a seismic response and deployed at substantially the same location as the EM field receiver; and

a survey report generated in response to an analysis of the EM wave field response, an analysis of the seismic response, and a reconciliation of the EM wave field response and the seismic response.

37. (New) A method as claimed in Claim 9, in which the distance between the two receivers is 5 meters or less.

38. (New) A method as claimed in Claim 17, in which the EM field is applied within approximately 5 to 25 seconds of the seismic event.